

Montana State Library

This cover sheet created by Internet Archive for formatting.

Industrial Horizons



3 0864 1004 4353 3

Vol. 2—No. 4

April, 1957

News Publication — Montana State Planning Board

Small Industries Help State Economy . . .

"CRAZY DUCKS" MADE IN BOZEMAN

One manufacturing operation few Montanans know about is Allied Manufacturing Corporation (AMC) of Bozeman, which has marketed 3 million plastic duck toys since 1954.

Minimum production is 300 dozen ducks per week, according to W. J. Sullivan, president. Marketed through a five-and-dime company and through independent toy dealers, the ducks contain a magnet and are guided over a pan of water by means of a wand with a piece of metal in the end.

This is a patented product; it just happens to be assembled in Bozeman. Raw materials come from many areas. The plastic ducks themselves are fabricated overseas, and freighted to Bozeman, where a magnet is added and the product packaged. Plastic for enclosing the magnet in the duck comes from California and Tennessee, and other raw materials come from Massachusetts.

AMC is planning to diversify into production of twenty other products, most of them in the novelties and amusement lines. These include magnetic typewriter eraser clips, magnetic key chains, plastic 3-D viewers for viewing photographs, bull horns, plastic mice and various magnetic fasteners.

While this is a relatively small operation, hiring around 25 persons, it does demonstrate that manufacturing is possible in Montana.

Last month INDUSTRIAL HORIZONS had an article entitled "Industry to Be Found in Your Own Back Yard."

A lot of people around Montana are saying it's impossible to start an industry here. They all have their reasons for saying this, but they don't realize that Montana now has a certain amount of manufacturing. In fact, manufacturing employment represents around twelve per cent of all non-agricultural employment in Montana.

And much of this manufacturing is done by small firms. Nearly 85 per cent of Montana manufacturing establishments have less than twenty employees.

If these small manufacturers can stay in business, there is no reason more can't make a go of it.

In order to show how small manufacturers operate in Montana, INDUSTRIAL HORIZONS this issue features five of these small, locally-owned and managed industries:

(1) Mission Homes and Columbia Paints utilize Montana natural resources to serve Montana markets. Many Montanans don't realize it is possible to manufacture an increasing share of our own consumer goods. There's no reason everything has to be shipped in from somewhere else. In many cases the local manufacturer has a cost advantage over manufacturers in other regions of the country who ship products into Montana.

(2) Allied Manufacturing and National Hydraulic make patented products for national distribution. The only reason they are in Bozeman and Billings is that's where the owner of the patent lives. Montana manufacturers, by making a product with a patented process, can compete in national markets.

(3) Belgrade Alfalfa Mill and American Chemet (a division of Columbia Paints) process our natural resources for out-of-state markets.

How many people with ideas just as good as these live in your community?

Is there anything you can do to help them along? Remember, a new industry, even a small one, may mean the difference between prosperity and stagnation.

Belgrade Alfalfa Mill Ships to West Coast

One of Montana's most interesting manufacturing enterprises is Belgrade Alfalfa Mill, Inc.



(Browning Photo)

Belgrade Alfalfa Mill processes 10,000 tons of alfalfa a year.

Dehydration of alfalfa is a good example of manufacturing tied to agriculture, for value is added to an agricultural product through processing, and the final product serves an agricultural market. Water is removed from hay; certain nutrients, such as tallow and minerals, are added; the product is ground and pelletized, and the pellets mixed (at the distribution center) with other livestock feeds. The advantage of dehydrated alfalfa, of course, is that the nutritive energy of fresh hay is preserved, in a compact form, for future use. In addition, the process allows more scientific control of diet during winter months.

Fuel and Hay

Factors in the location of this industry include cheap fuel and availability of hay. Belgrade is on the main trans-state

natural gas line of Montana Power, and is the center of a large irrigated area stretching from Townsend to east of Bozeman. Most of the alfalfa for the Belgrade mill comes from the lush Gallatin Valley.

Only fifteen per cent of the mill's production stays in Montana, according to Maynard Johnson, vice president and general manager; the balance is marketed in Washington and Oregon. Therefore, the mill competes with West Coast mills. One limitation on a Montana mill is our 100-day growing season, which limits both the total production of hay in Montana, and the effective period in which the mill can operate.

Agriculture is Montana's biggest business. Further processing of our agricultural production, as is stated in the article on malting barley elsewhere in this issue, is a field in which we all should concentrate our efforts.

Industrial Growth Starts At Home . . .

Helena Firm Competes For Local Market

For 10 years Montana has had a paint factory. Columbia Paint Company of Helena.

Started on a shoestring in December of 1946 by four Chicago paint salesmen, Columbia Paint got samples from zinc smelters all over the West, had these samples tested for suitability in paint manufacture, and discovered the zinc from the Anaconda Company slag treating plant in East Helena, connected with the American Smelting and Refining Company zinc fuming plant, was the most suitable.

Since 1946 over a million gallons of Columbia paint have been sold in Montana and Idaho. According to Hoyt Larison, Vice President and Sales Manager, over \$5 million has been spent in Montana in the form of raw materials, wages, taxes, services, and freight charges. Even though this is only a small company, its contribution to the state's economy is substantial.

Contributes to Economy

And, Larison adds, Columbia Paint wants to increase its contribution. "We hope the day will come when we can manufacture a paint using nothing but materials produced in Montana. Already we have leaded zinc oxide (which contains 12% basic sulphate of white lead), linseed oil, and talc. With the addition of titanium, good exterior paint can be produced. There are known deposits of titanium in Montana which will someday be mined."

Columbia Paint manufactures over 100 varieties of paint. For several years they have supplied yellow and white traffic paints for marking Montana highways. Another special paint developed for the Montana Fish and Game Department is used in hatchery rearing ponds. It is designed to retard algae growth and yet not affect fish.

Zinc and Talc

Another division of the company, American Chemet Corporation, produces leaded zinc oxide at East Helena. Raw materials are received from the Anaconda Company slag treating plant, and processed to standardize the color and grade the lead content. The product is then screened, passed through disintegrators, and packaged for shipment.

Since 1954 the company also has shipped lime-free talc all over the country. Most goes to the West Coast at present. Mined in Dillon and screened in Alder, the talc is shipped to East Helena where it is crushed, ground, graded, and packaged. The finely-ground finished product is used in paint, ceramics, and joint cement.

Over 40,000 tons of zinc oxide and talc have been shipped since 1946.

National Hydraulic Shows Growth Potential

An enterprise contributing to making Billings a manufacturing complex is National Hydraulic Corporation, located in the Northern Pacific Industrial Sites.

Making valves, cylinders, fluid meters, and hydraulic pumps, the organization is typical of the small units making a specialized product that exist in more developed manufacturing areas of the country. The only difference is that National Hydraulic isn't located near Chicago or Cleveland—it's located in Billings, Montana.

Hydraulics, along with electronics, is among today's fastest growing industries, according to Fred Kester, General Manager of the Billings plant. The national market for hydraulically operated machinery is 15 times the productive capacity which was \$5 billion in 1956. The reason the demand has so far outstripped the supply is the shortage of trained hydraulic engineers. However, Kester predicts, large machinery manufacturers are coming to realize the potential of hydraulics, and this may mean National Hydraulic in Billings will be a very important operation.

The company was started in 1940 by K. H. Hoen, a hydraulic engineer, as H-S Engine Company for the purpose of manufacturing fuel injection parts used in diesel engines. As time progressed, the company added the manufacture of a hydraulically operated front-end loader "Hydra-Loader" which is mounted on tractors, hay loaders, road building equipment, and many other units. Thirty per cent of "Hydra-Loaders" are sold in Montana, and the rest in the Rocky Mountain area.

Pumps Widely Used

Now the line of patented products produced by this company includes four series of hydraulic pumps ranging in size from 12 gallons to 220 gallons per minute. These pumps have a national distribution.

Sales are expected to top \$1 million in 1957. The payroll of 30-40 employees contributes around \$300,000 per year to the Billings and Montana economy.

Power and Idea

All raw materials for "Hydra-Loaders" are shipped into Billings, there fabricated and shipped out again as complex machinery. The reason this can be done is (1) cheap power, and (2) Mr. Hoen, holder of the patents, decided to set up shop in Billings. Originally a Montanan, he wanted to stay here, and the firm has gradually grown.

This business is the type that should be encouraged in Montana. Employment is year-round (in fact, National Hydraulic is now operating on two shifts); it's a Montana company owned and managed by Montanans; "value added by manufacture" is high, since 40 employees turn raw steel into machinery worth \$1 million per year; it's a clean industry; and it's a growth industry, one that will grow with increasing technology.

Other Western States have prospered with such industries. We can too.



Interior view of National Hydraulic plant in Billings, makers of hydraulic pumps for use on material-handling equipment. Sales will reach \$1 million during 1957.



Production has reached 500 prebuilt homes at Mission Homes factory in Missoula.

PRE-BUILT HOMES MADE IN MISSOULA

A new business tied to the growing Montana market is Mission Homes, Inc., which makes pre-built homes in Missoula.

Founded a year ago, Mission Homes makes approximately 500 prefab homes per year for shipment to markets within a 500-mile radius of Missoula, and employs nearly 40 people. The company is associated with Rother Lumber Company of Missoula (James E. Rother, Jr., is President of both companies), which gives an integrated source of supply and cuts down overhead.

Mission makes its prefab homes in panels up to 32 feet long. The panels are joined with a tongue and groove method and then held rigidly by metal ties at the top plates. Openings are cut

in the panels for electrical outlets and bottom plates are drilled for installation of wire. Roof members are all pre-cut, and then paneled at the house site.

With the use of a special 40-foot boom, erection of a 1,000-square foot house, including walls and roof panels, requires six to seven hours using six men. Average cost of erection, including crane rent, is \$250.

Prefabricated housing is becoming big business in this country. In 1957 nearly 200 manufacturers expect to sell about 75,000 factory-fabricated houses. Mission Homes has displayed ingenuity in taking advantage of this trend in Montana. Construction is down in most parts of Montana; these low-cost Mission Homes should stimulate housebuilding.



American Chemet has shipped over 40,000 tons of leaded zinc product and talc from its East Helena plant since 1946.

Urban Zoning Aids Rural Residents

There seems to be some confusion in Montana as to the nature of urban zoning. In the last legislative session fear was expressed of the expansion of zoning and planning into rural areas.

It is a fact that urban growth is inevitable in Montana, if the state as a whole grows. The State Board of Health reports a 14.2 per cent population gain in Montana since 1950. However, 85 per cent of this growth has occurred in the 10 counties with the largest population—those with the largest cities. Seventeen counties have lost population—all primarily rural counties.

As farms become larger and more efficient in terms of manpower used, some people have to leave the farm every year. Many go to Montana cities. Between 1940 and 1950, Montana rural farm population declined by 22.6 per cent, while the urban areas (cities over 2,500) increased by 19.6 per cent.

But as cities grow in population they also must grow in area. More houses have to be built in outlying areas; more county roads have to be turned into city streets. Some urban expansion into nearby agricultural land is inevitable. It's the only place cities have to grow.

If this urban growth is inevitable, it's only logical to direct that growth to the maximum advantage of all the people. And the best way to assure orderly growth is through zoning.

Manufacturing is confined to proper areas under zoning. There is a minimum spoilage of nearby agricultural lands because any good zoning ordinance contains performance standards—in order to locate in certain areas, industries must meet standards of cleanliness and noise.

Highest Land Values

Farmers living adjacent to urban areas stand to gain financially when urban growth is planned and regulated. Property values are maintained at their highest values. In many cases Montana farmers living near cities have sold their property at an unnecessarily low price to speculators because they didn't know the extent and direction of the city's growth. If a community knows how fast it is going to grow, and where, it can zone to bring the highest value to property.

Finally, it should be recognized that zoning can protect acreages in suburban areas. Many people like to have a garden and a few trees around their place and there is no reason they should have to live 20 miles out to enjoy these things. With zoning, a district can be set up to exclude all land uses not of a certain size.

The 1957 legislature passed a comprehensive planning bill which allows cities and counties to set up zoning districts throughout the urbanized area. This is beneficial legislation, and farmers stand to benefit as well as city folks.

Engineers, Veterans Leave Montana

We all know there are a lot of people moving out of Montana every year.

As Professor Carl Kraenzel of the Department of Agricultural Economics and Rural Sociology at Montana State College says in his booklet *Montana's Population Changes, 1920 to 1950* (Montana State College Agricultural Experiment Station Bulletin 520, p. 3):

"The annual Montana Day picnic is a typical event up and down the West Coast and throughout the Southwest, from Seattle to Los Angeles and on to Santa Fe. Former Montanans gather to talk about the 'good old days,' mutual friends, and the state they left behind. It is customary to burst forth in song, including the following verse:

'Montana! Montana! Glory of the West.

Of all the states from coast to coast
You're easily the best . . .'

"These events dramatize the extent of migration out of Montana, and its predominantly westward course. Since 1920 the state has experienced a considerable net exodus of population. This has changed not only the prospective size of Montana's population, but also the date when the state will reach its maximum numbers."

Some new evidence of this net exodus from Montana has recently been noticed.

Veterans' Bonuses

One startling fact, as developed by James F. Neely, Director of Adjusted Compensation Division, is that **29 per cent of all bonuses paid to veterans of World War II were paid to out-of-state residents.** In other words, out of 58,737 veterans who lived in Montana in the early 1940's, 17,032 left and didn't return. Nearly 14 per cent of all veterans' bonuses were paid to people now living in Washington and California.

By the way, the cost of these bonuses is being amortized by a 2-cent tax on each pack of cigarettes purchased in Montana since 1950.

Engineers Leave

Another interesting fact, according to Brick Breeden, Placement Director of Montana State College, is that of the 93 engineers graduated from Montana State College in June of 1956, 59, or **63.4 per cent, accepted jobs in other states.** Only 15.1 per cent stayed in Montana (12.9 per cent went on to graduate school, 4.2 per cent went to the armed forces, and 4.2 per cent are unaccounted for).

BARLEY FOR MALTING TESTED BY MSC

A good example of an agricultural industry that could be established in Montana is barley malting.

High quality malting barley is not in surplus, according to R. F. Eslick, Associate Agronomist at Montana State College. In fact, the 110 million bushels of barley used for malting does not meet the demand of brewers.

Montana Tests

Tests are being conducted in several irrigated Montana areas to determine the suitability of growing malting barley here. Although varieties of barley now grown in Montana are not acceptable for malting, barley is a crop admirably suited to Montana growing conditions. In fact, Montana is the third largest barley producer in the country (after North Dakota and California). **At present over 8 million bushels of malting barley from the Klamath Falls area of Oregon passes through Montana each year for malting in the East. This could well be grown in Montana.**

This possibility is especially significant when it is remembered that barley is not a surplus crop, and that there is increased irrigation in Montana.

Research in Montana is being conducted in part through the MSC Endowment and Research Foundation. Two trade associations of the malting indus-

try, Malt Research Institute and Malting Barley Improvement Association, have granted money to the MSC Agronomy and Soils Department, which cooperates with the U. S. Department of Agriculture Malt Laboratory, USDA Field Crops Research Branch and individual farmers.

Malting Industry

Another possibility, according to Eslick, is a malting industry in Montana. Malting and brewing are two separate operations, and they may or may not be performed by the same organization. There are five breweries in Montana and several in surrounding states, but there is only one malt house and it does not supply enough malt for the one brewery it serves.

Malting consists of slow, controlled germination of the barley followed by rapid drying and sprout removal. Brewing, on the other hand, typically consists of grinding the malt; mixing with unmalted cereals such as corn; cooking in water; adding hops; fermenting with yeast; and cool storage. Malting barley should be low in protein and high in malt extract. The Montana experiment is being conducted with a variety of barley called "Betze's Two-row."

Persons interested in Montana's economic development should watch the results of this experiment, for malting is definitely an industry which can be established in Montana if local businessmen are alert.

BRIEFS

MARCH INDUSTRIAL HORIZONS had an article emphasizing the need for a complete file of buildings available for industrial use in Montana. Later, a questionnaire was sent to all local development groups. This form has been completed by Chambers of Commerce in Forsyth, Lewistown, Sidney and Three Forks, as well as by a private firm in Missoula. Are there no other available buildings in Montana?

Quarterly Plant Location Survey of New York "Journal of Commerce" came out this month with planned industrial districts listed for Billings (2), Bozeman, Columbus, Havre, Missoula (2), and Sidney. Any omissions occurred because the State Planning Board was unaware of them. Second Quarterly Survey will come out in July. This is read by industrialists all over the country.

MONTANA STATE PLANNING BOARD

Sam Mitchell Building

Helena, Montana

Reports on business concerns appearing in this publication do not constitute an endorsement of either the concern named or its products. Statements in this newsletter do not reflect Board policy unless official action is reported.

Industrial Horizons . . .

Published monthly and distributed free of charge. Names will be placed on the mailing list upon request.



BULK RATE
U. S. Postage
PAID
Permit No. 83

Montana State Library

This cover sheet created by Internet Archive for formatting.